

## REMARKS

Claims 29-39, and 43-50 are pending in the application. Claims 1-28, and 40-42 have been previously cancelled. Claim 29, 37, and 44-50 are currently amended.

Claims 29 and 37 have been amended to include a limitation reciting the means for preparing the transformed yeast and the construct, respectively. Claims 44-50 have been amended to recite the specific compositions and/or ratios of the amino acids that constitute the polypeptide encoded by the nucleic acid polymer. The ratios between different amino acids that make up the polypeptide as recited in Claims 44-50 are as disclosed in Tables 1, 2, 5, and 6.

No new matter has been introduced by the amendments.

### **I. Claim Rejections--35 U.S.C. §112 First Paragraph**

Claims 29-39 and 43-50 stand rejected under 35 U.S.C. §112, First Paragraph, as failing to comply with the written description requirement. The Examiner maintains that these claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors, at the time the application was filed, had possession of the claimed invention. Claims 29, 37, 44-50 have been amended to recite specifically the compositions and/or ratios of the amino acids that constitute the polypeptide encoded by the nucleic acid polymer. The term “about” has been deleted. The composition disclosed in claims 29 and 37 are as taught on page 8 of the Specification as originally filed. The ratios between different amino acids that make up the polypeptide are as disclosed in Tables 1, 2, 5, and 6.

The Examiner further maintains that the recitation that “methionine/cysteine may be either methionine or cysteine” was not supported by the Specification. Applicant respectfully disagrees. The phrase “methionine/cysteine” is commonly used in the field of biochemistry to indicate that a position on a polypeptide may be occupied by either amino acid unless otherwise specified. For instance, in Gibbons GF and Howard DH, “Arginine auxotrophs of *Candida albicans* deficient in argininosuccinate lyase,” *J Gen Microbiol.* 1986 Feb;132(2):263-8; and separately in Garcia JV and Foster JL., “Structural and functional correlates between HIV-1 and SIV Nef isolates,” *Virology.* 1996 Dec 15;226(2):161-6, the

term “methionine/cysteine” is used to referred to either one of these two sulfur-containing amino acids. Applicant is not required to teach what is commonly known in the field of endeavor. Withdrawal of the rejections based on 35 U.S.C. §112 first Paragraph is respectfully requested.

## **II. Claim Rejections--35 U.S.C. §112 Second Paragraph**

Claim 45 stands rejected under 35 U.S.C. §112 second Paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 45 has been amended to delete the term “histidine,” withdrawal of the rejection based on 35 U.S.C. §112 second Paragraph is respectfully requested.

## **III. Claim Rejections--35 U.S.C. §102**

(1) Claims 29-30, 32-34, 36, 27 (claim 27 had been cancelled previously, could the Examiner mean 37?) and 43 stand rejected under 35 U.S.C. §102(b) as being anticipated by Barr et al. (J. Exp. Med. 165:1160-71, 1987). Claims 29 and 37 have been amended to recite means for selecting the composition or ratio of the amino acids that constitute the polypeptide encoded by the nucleic acid polymer. Claims 30, 32-34, and 36 depend from claim 29. Claim 43 depends from claim 37 and necessarily incorporate all limitations of claim 37.

Barr et al. merely teaches a yeast strain transformed with a construct containing a gene encoding an exogenous protein. Barr et al. does not teach or suggest that the composition of the exogenous protein is as recited by the amended claims 29 and 37, wherein the amino acid composition is determined by a feed analysis. Thus, since not all limitations of the present claims are taught or suggested by the Barr reference, withdrawal of the §102(b) rejection is respectfully requested.

(2) Claims 29-30, 32-34, 36-37 and 43 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,826,957 issued to Nussenzweig et al. ('957 patent). Claims 29 and 37 have been amended to recite means for selecting the composition of the exogenous protein, wherein the amino acid composition is determined by a feed analysis. Claims 30, 32-

34, 36 depend from claim 29. Claim 43 depends from claim 37 and necessarily incorporate all limitations of claim 37.

The '957 patent merely teaches the expression of an exogenous protein in yeast, nothing was mentioned with regard to the means that is recited in Claims 29 and 37. Thus, for reasons similar to the ones set forth in the previous section, the '957 patent does not anticipate the present claims as currently amended. Withdrawal of the §102(b) rejection is respectfully requested.

(3) Claims 29-32, 34, 36-37, and 43 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,337,193 issued to Tully et al. ('193 patent). Tully et al. does not disclose the claim limitation with regard to the specific composition of amino acids in the polypeptides, and thus the transformed yeast strain of Tully is distinguishable from the presently claimed yeast strain in the composition of the introduced construct. Withdrawal of the rejections is respectfully requested.

(4) Claims 29-37, 39 and 43 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5,985,605 issued to Cheng et al. ('605 patent). Claims 29 and 37 have been amended to recite the means for selecting the composition or ratio of the amino acids that constitute the polypeptide encoded by the nucleic acid polymer. Claims 30-36 depend from claim 29, Claims 39 and 43 depend from claim 37 and necessarily incorporate all limitations of the independent claims. For reasons similar to those presented in the previous sections, the '605 patent lacks teachings with regard to the composition of the polypeptide to be expressed in the yeast strain. Withdrawal of the rejection over the '605 patent is respectfully requested.

(5) Claims 29-37, 39 and 43 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,451,572 issued to Lei et al. ('572 patent) and Dassa et al. (J. Bacteriol., 172(9): 5497-5500, 1990). For reasons similar to those presented in the previous sections, Applicant respectfully submits that the '572 patent and Dassa et al. do not anticipate the claims as currently amended. Withdrawal of the rejection is respectfully requested.

**IV. Claim Rejections--35 U.S.C. §103**


Claims 29-39 and 43 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,451,572 issued to Lei et al. ('572 patent) as evidenced by Dassa et al. in view of Sikorski et al. (Genetics 122: 19-27, 1989). Claims 29 and 37 have been amended to recite specifically the means for selecting the composition or ratio of the amino acids that constitute the polypeptide encoded by the nucleic acid polymer. Claims 30- 36 depend from claim 29, and Claims 38-39 and 43 depend from claim 37 and necessarily incorporate all limitations of the independent claims.

The '572 patent along with Dassa et al. fails to disclose the means as recited by amended claims 29 and 37. Sikorski et al. merely disclosed some shuttle plasmids to be used for gene expression in yeast. Thus, none of the cited references disclose the specific amino acid composition of the polypeptide to be expressed by the transformed yeast, and these differences between the claimed invention and the cited art are not obvious to one of ordinary skill in the art. Withdrawal of the obviousness rejection is respectfully requested.

Applicant has addressed all issues raised in the last Office Action and believes that the amendments presented herein should place the pending claims in a condition for allowance. The Examiner is encouraged to call the undersigned attorney if a telephone discussion can advance the prosecution of the instant case. This Response is being submitted along with fees for one-month extension of time and Request for Continued Examination. Applicant believes no other fees are due at this time; however, the Commissioner is authorized to charge Deposit Account No. 12-0600 if any fees are required for this filing.

Respectfully submitted:

Date: 6/19/08

  
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